LIVE WIRE: A "SHOCKING" TALE OF HOME REPAIR

KNOWLEDGE

VOL 4 OCTOBER 2010

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

THE GOOD, THE BAD AND THE UGLY

- UNCHAINED
- SMALL DISTRACTIONS
- LEAD, FOLLOW OR GET OUT OF THE WAY!

THE BEST APPROACH

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OCTOBER 2010-MARCH 2011

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LEADERS SOLDIERS
FAMILIES

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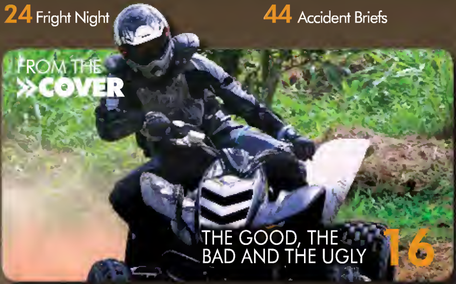

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please e-mail comments to **safe.knowledge@conus.army.mil**.

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REDISCOVERING THE "LOST ART"

As I look out across our Army, I continue to be amazed at the superb job our Soldiers are doing each and every day. Those who make up our total force — not only our Leaders and Soldiers, but also the Families and Civilians who support them — are all great Americans who represent the best our nation has to offer.

One thing that strikes me most about our Soldiers today, especially the younger generation, is how willingly they accept the responsibilities of modern military service. Nearly every year since fiscal 2005, more than 100,000 new Soldiers have entered our force at an average enlistment age of 20 to 21 years old. This means we have an immense number of junior Leaders in our current ranks, a trend that will continue for the foreseeable future. And, as our force structure evolves into the ARFORGEN model, these young Leaders will become more important than ever in keeping all our Soldiers safe and in the fight.

There's no doubt our junior Leaders are doing great things, especially in our combat theaters. Their resolve and hard work have helped sustain an unprecedented pace of continuous deployments amid constant conflict, and their leadership has provided both continuity and reassurance for the Soldiers in their charge. As significant as combat operations are, however, we cannot forget the importance of what happens at home station, where the majority of our fatal accidents are occurring.

It's not that our young Leaders don't want to make a difference at home. Rather, the necessities of war have made garrison leadership a "lost art" for junior Leaders because they haven't had a lot of experience at home station. But to tackle accidental losses and other issues facing our force today, we have to get back to the "left of boom" at home — where safety truly begins. And to do that, we have to help our young Leaders understand their responsibilities beyond the battlefield and what leading from the front means, both on and off duty.

The most important steps junior Leaders can take in leading at home seem easy enough: taking the time to sit down with their Soldiers and Families and getting to know them on a personal level. Through this one-on-one interaction, Leaders can identify high-risk Soldiers and develop intervention plans tailored to the individual's unique needs and interests. And to really have an impact on Soldier decisions during off-duty hours, junior Leaders must pay attention to the little things that matter. Even a short welfare call to check in on a troubled

> “Even a SHORT welfare CALL TO CHECK IN on a TROUBLED Soldier can have an IMPACT on his or her DECISIONS.”

Soldier can have an impact on his or her decisions. It’s all about knowing how Soldiers think, what they think and reinforcing the safety message around the clock, every day, in theater and at home, on and off duty.

Our young Leaders can’t be effective without the help of experienced and senior Leaders, however. They need mentorship and guidance to successfully mentor and guide their own Soldiers. There’s no doubt our Army is busier than ever, but we simply have to find the time to grow our junior Leaders into the well-rounded, professional leadership cadre needed for the conflicts of both today and tomorrow.

When it comes to accidents and the vital role all Leaders play in risk management, no one stands alone. There are some great products out there to help Leaders and Soldiers at all levels in the fight against preventable accidents and high-risk behavior, including those found in the “Cornerstone” section of the USACR/Safety Center website (https://safety.army.mil). The three corners — Soldier, Leader and Family — each feature interactive media products such as Soldier risk assessments, safety training information and links to other tools designed to keep the total force aware and safe. One new tool available for our single Soldiers is the BOSS Safety Factor kit, just launched in September. Please take a look and let us know what you think. Your feedback is always welcome and helps us provide you the information you need.

We’re embarking on a new fiscal year this month, and there’s no better time to renew your commitment to safety and the needs of the junior Leaders and Soldiers in your command. Each of you is doing fantastic work every day for our Soldiers, Families and Civilians, and I’m confident this year will be another great year for our Army. Thank you! «

Army Safe is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety

UNCHAINED

GUNNERY SGT. SHANE LEVINGS
1st Battalion, 4th Marines, 1st Marine Division
Camp Pendleton, Calif.

In September 2009, my unit conducted training in the mountains of northern California. My platoon was responsible for performing 80 percent of the convoy operations. One morning, we were tasked with taking the company's packs and gear to a distant training area. During one of our scheduled stops, a HMMWV stalled and would not restart. That's when I made a decision that could have had deadly consequences.

Being a motivated young Leader, I decided to rig the truck for towing. As my troops were hooking up the tow bar, I noticed one of the drivers tearing through his truck. I asked him what he was doing, and he said he was looking for the safety chain. I've worked with HMMWVs my whole career and towed more trucks than I can count. In all those times, however, I'd never used a safety chain with a tow bar, so I told him to disregard and get ready to move out.

Due to the mountainous terrain, we'd adjusted our convoy speed to 15 mph. The truck we were towing seemed to be doing well, so, as we passed through base camp, I made the command decision to continue on to our training area. Once there, we unloaded the packs and gear and checked the tow bar to ensure it was still secure. All looked good, so we headed back to lower base camp to drop off the downed vehicle and check the rest of the trucks in the convoy.

On our way back down the mountain, I started receiving calls over the radio that some of the vehicles' brakes were failing and drivers were using their emergency brakes to slow their trucks. By the time I reached the base of the mountain, I figured we were all out of the woods. Then the call came in.

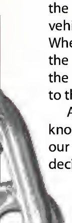
"Vic 1, this is Vic 10. Truck down!"

We consolidated the rest of the convoy at the bottom of the mountain and I sent them on to base camp. I then went back up the mountain to see what was happening. Once I arrived, I only saw one truck on the road — and it was facing the wrong direction. Where was the other truck?

The driver told me he was traveling down the mountain when his brakes failed. As the truck continued to pick up speed, he pumped the brakes until they locked, causing the HMMWV he was towing to slam into the tow bar and break the bracket on the driver's side. The HMMWV then went into the oncoming traffic lane and started passing the truck that was towing it. The passenger-side bracket broke and the HMMWV traveled down the mountain for about 500 yards before finally going into a ditch. Fortunately, no one was injured. If there had been any vehicles coming up the road, though, the occupants surely would have been killed.

If I would have listened to that young driver from the beginning and used the safety chain on the tow vehicle, this accident never would have happened. When the safety chain is properly attached, it prevents the truck from moving into oncoming traffic should the tow bar break. While there still may be damage to the vehicles, the loss of life may be prevented.

As senior Leaders, we have to realize that we don't know everything. Sometimes we have to listen to our young trained troops to help us make the right decisions.«



MITIGATING TIRE FIRE DAMAGE

GROUND TASK FORCE
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Though not at an alarming rate, tire fires are impacting the Army's vehicle fleet in theater. Whether from vehicle operations or enemy action, tire fires have been extremely difficult to extinguish and have historically resulted in catastrophic damage, putting most affected vehicles permanently out of commission.

In response, the U.S. Army Materiel Command has identified a commercial off-the-shelf external extinguishing system to defeat these types of fires. The system is an independent compressed air foam portable backpack-type extinguisher that comes in yellow or desert tan. According to the U.S. Army Test and Evaluation Command (ATEC), which tested the system, the extinguisher weighs about 75 pounds when fully charged and converts the 5 gallons of water it contains into about 100 gallons of foam. ATEC also indicated the system can discharge a stream of foam from up to 22 feet away, which allows users to remain out of harm's way.

Since these extinguishers do not meet electric conductivity rating (C rating) requirements as part of authorized extinguishers listed in Department of Defense Issuance 6055.06, National Fire Protection Agency National Fire Codes and Army Regulation 420-1, they should not replace the required dry chemical or Purple K systems. Instead, these extinguishers can be used to supplement existing systems. It is also imperative users are properly trained to operate and maintain this system in accordance with the manufacturer's instructions.

Units can order this system through the Standard Army Retail Supply System (NSN 4210-01-558-3687). The U.S. Army Combat Readiness/Safety Center's Ground Task Force is interested in hearing your feedback on this issue and can be contacted at safegroundtaskforce@crc.army.mil.«

The Best Appro

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Fort Wainwright, Alaska

CHIEF WARRANT OFFICER 2 SHANE KEEBLER
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Fort Campbell, Ky.

As Army aviators, we often tell ourselves we'll never encounter instrument meteorological conditions (IMC). However, the fact is, we will encounter IMC eventually in our career — either intentionally or inadvertently — and, sometimes, with potentially devastating consequences.

ach

While deployed in support of Operation Enduring Freedom in 2008, I served in an air assault flight company based out of Forward Operating Base (FOB) Salerno in eastern Afghanistan. Most of our missions were routine and, on this day, it was no different. The mission, a medevac chase, required one of our aircraft be paired with a medevac aircraft. As directed, we flew as a flight of no less than two with a designated air mission commander (AMC). The medevac pilot in command (PC) was always the designated AMC for medevac missions, regardless of experience. The AMC was responsible for briefing all involved crews and was in charge of the flight overall. Our crews normally worked well together as a flight; however, because of the routine nature of this mission, we had become overconfident in our ability to fly in deteriorating weather.

The mission began as it had any other night. Both crews received a GO/NO-GO brief to include weather, the enemy situation, etc. Afterward, we performed an AMC brief and then headed to our aircraft for preflight preparations. About an hour before sunset, we received a medevac call. Our mission was to fly to FOB Ghazni — about a 40-minute flight — pick up a patient and return to FOB Salerno. We received a legal weather brief and departed.

Our flight to Ghazni was unremarkable. On arrival, we discovered the patient was not ready and there would be a delay. FOB Ghazni had a forward arming and refueling point, so we asked the AMC if he wanted to refuel while we waited. He replied that he had sufficient fuel to return to FOB Salerno. We had the same amount of fuel with a similar fuel consumption rate. His appraisal of the situation was reasonable, so we forewent refueling as well.

The patient arrived 20 minutes after we landed. In the interim, the day had faded away. Because of the moon angle and illumination, we were required to take a low-illumination route on the return trip. A combination of high

> “ . . . **BECAUSE** of the **ROUTINE** nature of this **MISSION**, we had become **OVERCONFIDENT** in our **ABILITY** to fly in deteriorating **WEATHER.** ”

> “When **FACED** with **DETERIORATING WEATHER** with an important mission, **DECIDING** the **BEST COURSE** of action is **NOT ALWAYS EASY.**”

altitudes and lack of illumination reduced ground references.

As we were returning, we briefly encountered unforecasted heavy precipitation that transitioned into a heavy layer of scud. We radioed Chalk 1 and suggested we divert to the nearest hospital, which was 10 miles behind us. The AMC acknowledged our call, but decided to press on. He reported his crew could still see the ground and they were proceeding. Despite our reservations, we continued for several minutes until we were in a brightly lit area that we should have been able to see, but did not. We again radioed the AMC that we were visual flight rules on top and we couldn't see any ground lights. Further, we expressed our concern that we would have to execute the emergency global positioning system approach into FOB Salerno because we didn't have enough fuel to turn around, nor did we have contact with the ground. Chalk 1 responded they could see lights every now and then.

About 10 miles from FOB Salerno, we called Metro to get weather conditions. The weather briefer reported a ceiling broken at 3,000 feet above ground level. We were at 9,000 feet mean sea level (MSL) with unrestricted visibility on top of the clouds and our base sat at 3,500 feet MSL.

At that point, Chalk 1 realized the seriousness of the situation. We coordinated flight to the two separate initial approach fixes (IAF) and sequenced ourselves through the solid cloud layer with the help of Salerno tower. Before reaching the IAF, I briefed my crew on the approach procedures and warned everyone to be aware that spatial disorientation might occur. My co-pilot initiated the descent and we were soon in the clouds. Because of mission constraints, we rarely practiced flying instruments. However, we did an adequate job of maintaining aircraft control. For several intense minutes, we were IMC at night with limited fuel. Our door gunner experienced spatial disorientation and began to panic. We had him focus his attention on the attitude indicator to allay his concerns. At 6,000 feet MSL, we began to see the ground, familiar structures and terrain features. To say our crew was relieved to be out of that situation was an understatement. Shortly thereafter, both aircraft landed safely.

What Went Wrong?

When faced with deteriorating weather with an important mission, deciding the best course of action is not always easy. As aviators, we are driven to accomplish our mission and sometimes we become so task focused that we don't adequately identify or assess the risks. First, we should not have passed on the opportunity to refuel. We were not power limited and there was ample time to do so. Next, upon encountering inclement weather, we should have turned around while we had sufficient fuel. Finally, although the AMC was in charge of the overall flight, I should have made the decision, as the PC, to ensure the safety of my aircraft, my passengers and crew. Rather than let the less-experienced AMC lead us into trouble, it was my responsibility to be proactive in suggesting alternate courses of action.

We were both mission focused and overconfident in our abilities to fly in deteriorating weather. Additionally, we were complacent because of the routine nature of the mission. We were lucky that night. Crews should be prepared for the possibility of entering IMC despite the forecasted weather. Sometime, somewhere, entering IMC will happen. Remember, the best approach is to land before entering IMC.

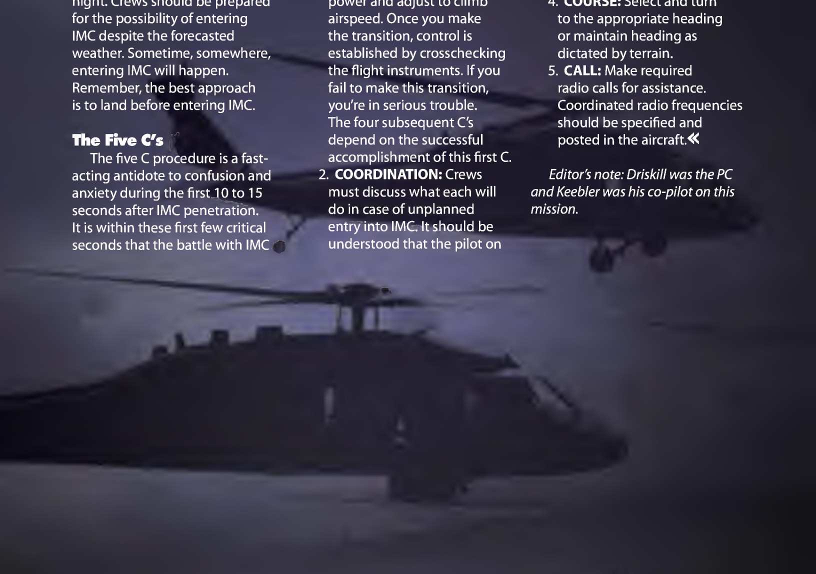
The Five C's

The five C procedure is a fast-acting antidote to confusion and anxiety during the first 10 to 15 seconds after IMC penetration. It is within these first few critical seconds that the battle with IMC is won or lost. If aircraft control can be maintained during this initial crucial period, the chances of surviving an IMC experience are greatly enhanced.

Whether all five C's will apply in each IMC circumstance will depend on existing conditions (e.g., terrain, obstacles, etc.).

1. **CONTROL OF THE AIRCRAFT:** This is the most important factor in recovering from unplanned flight into IMC. You must convince yourself ahead of time that if you enter IMC and lose ground reference, your only option is to immediately transition to instrument flight. Level the wings in the attitude indicator, maintain heading, adjust to climb power and adjust to climb airspeed. Once you make the transition, control is established by crosschecking the flight instruments. If you fail to make this transition, you're in serious trouble. The four subsequent C's depend on the successful accomplishment of this first C.
2. **COORDINATION:** Crews must discuss what each will do in case of unplanned entry into IMC. It should be understood that the pilot on the controls will concentrate on the instruments while the pilot not on the controls will back up the instrument scan, along with all his normal duties, and look outside for a place to land. When flying multiship, each aircrew must coordinate between flights.
3. **CLEARANCE:** To ensure that the highest terrain feature along the route of the flight will be cleared, gain altitude with a straight controlled climb. Utilize minimum safe altitudes and low illumination routes. In mountainous terrain, consider briefing multiship inadvertent IMC breakup to maintain heading and deconflict by airspeed and altitude.
4. **COURSE:** Select and turn to the appropriate heading or maintain heading as dictated by terrain.
5. **CALL:** Make required radio calls for assistance. Coordinated radio frequencies should be specified and posted in the aircraft.«

Editor's note: Driskill was the PC and Keebler was his co-pilot on this mission.



A FORKED'UP PLAN

MASTER SGT. PAUL B. CALIHAN
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Marana, Ariz.

It was early morning and a group of us had just finished an exhausting run. Walking up the back steps that overlooked our motor pool, it looked like any other beautiful day. In the distance, a Soldier was moving a forklift, but we didn't think much about it. What we saw next, however, left us scratching our heads.

A Soldier approached the forklift from the side and got onto the forks while the Soldier operating the lift raised him high enough to clear a fence surrounding the secure motor pool. We all stopped and looked at each other. Was this really happening — right in front of two captains and a master sergeant?

I walked up to the Soldiers and asked, "What are you going to put on your accident report?" Neither Soldier responded. Apparently, they didn't think there was anything wrong with lifting a Soldier over a fence and into the back of a 5-ton truck to replace parts. I suppose their reasoning was, "It's early … why bother trying to get someone to open the motor pool?" They had already worked out a plan — albeit a dangerous one. After pointing out the potential risk of their actions, the Soldiers both agreed this had not been in their best interest.

Sometimes, the accidents we've prepared for are right in front of our faces. These

Soldiers weren't thinking about what might have come next — the Army Ground Accident Report and potential repercussions from not following correct procedures.

When we see a potentially unsafe act, we must stop it or it will become a standard operating procedure. It takes leadership at all levels to ensure that when that moment comes, we intervene to prevent an accident that could injure or kill a Soldier.«

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ARMY SAFE IS ARMY STRONG

Small Distractions Can Lead to Fatal Mistakes

CHIEF WARRANT OFFICER 2 JAMES B. HILLIARD
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12th Combat Aviation Brigade
Illesheim, Germany

The mission was a standard ferry flight that the unit had done many times to a training area in Germany. For training purposes, the company standardization pilot wanted the younger pilots in the company to build a new route using the Aviation Mission Planning System (AMPS) computer. The pilots were to then brief the company on the new route. Due to system limitations, the pilots split the route into two segments. Upon reaching waypoint six, the flight would switch to the second route and continue to the destination.

I was in the front seat of the lead Apache in a flight of six departing for the training location. Everything, from communications check to takeoff, went as planned. I noticed that the route shown on the tactical situation display (TSD) took the flight past waypoint six and into the route structure of the training area.

I was on the controls and the aircraft hold modes were activated. Upon reaching waypoint six, the pilot in command (PC) in the backseat switched the route as briefed. To our surprise, the route disappeared from the TSD. The PC and I started discussing what happened. During the discussion, the PC wanted to take the flight controls. We did the three-way positive transfer of control and I released the controls. I then changed back to the original route. A few moments later, the PC said we were left of course. I concurred. Moments later, the PC said we were going farther left of course. Once again, I concurred.

A few moments later, the PC said we needed to come right and get back on course. I hesitated for a second and asked if he had the controls. "Oops, I forgot," was the response. Sometime during the confusion with the route, the PC forgot we'd transferred controls. For about five minutes, no one was flying the aircraft. It was the hold modes that kept us straight and level.

There is a standard word association used in the aviation community. We hear a command and, without hesitation, almost subconsciously give the response — sometimes without taking action. Because it is hard for the pilots in the Apache to see each other, it can be difficult to know if the action was completed without verbal confirmation. This has led to many accidents where no one was flying the aircraft.

Continue to practice proper crew coordination. Don't take it lightly. The smallest distractions can lead to a fatal mistake.«

> “**I HESITATED** for a second and **ASKED** if he had the controls. "**OOPS**, I forgot," was the **RESPONSE**.”

THE GOOD, THE BAD AND THE UGLY

BOB VAN ELSBERG
Strategic Communication Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Here are the stories of three Soldiers who started off on top of their all-terrain vehicles (ATVs) but didn't wind up that way.

The Good

Try as you might, you can't necessarily prevent every accident. However, you can dramatically increase your odds of survival by being prepared. You know … just in case.

Sgt. Shaun Delong looks like he got fed too much as a kid and just kept growing. A tall, solid-looking guy with a big grin, he's not happy if he's not flying through the air — launched from the ground on either two or four wheels. Something about the "freedom" of flying, he says, has him hooked. You can blame his parents. They gave him his first dirt bike — a Honda XR50 — when he was 4.

Not that the boring life was ever for him. By the time he was standing in line at his high school graduation, he knew he wanted an exciting job. In fact, he'd long ago made up his mind he wanted to be a cop. But that meant quite a wait while he got the needed training and put a few more birthdays behind him. Being an impatient sort of guy, he trotted down to his local Army recruiter, spurred by the promise of an immediate introduction into the world of law enforcement. Delong figured the Army would only be a temporary deal for him; five years in the green suit to prep him for the civilian police force. But, wouldn't you know it, the Army put a few stripes on his shoulder and the grass started looking pretty green on this side of the fence.

Fast-forward to 2009. Having spent the previous year competing on his dirt bike, he decided to spice up his life by racing on four wheels. Having tested several sport ATVs, he settled on a 2008 Yamaha YFZ450R. Its low-end torque, he figured, was just the thing for rocketing out of the gate and powering through corners. Sure, it was 100 or so pounds heavier than his dirt bike, but good air time was still possible. And he loved getting air time.

Delong said, "It's just the thrill of it — just being on a bike or an ATV. Especially jumping; it feels like you're floating through the air. It's not a feeling you can describe to someone unless they actually do it. It's kind of a rush."

Still, even a good rush needs to be tempered with a little common sense. His parents didn't let him swing his leg over his dirt bike without first instructing him about riding safely. In addition, they also made sure he wore an appropriately sized helmet. Those instructions — ingrained at such a young age — became a part of his mindset every time he rode. And then there was a hard example that hit close to home. In 2006, his cousin went over a cliff on an ATV, struck his head as he tumbled and died from his injuries. A helmet would have made a huge difference that day.

Hit the fast-forward button again to early on the afternoon of Nov. 1, 2009. Delong decided to join his neighbors for a ride on the track he had built on the land behind his house, and air time was definitely on the menu. Delong approached the double jump with the intent to clear the obstacle, but came up a bit short on the landing.

"When I hit the face of the first jump, I think my rear tires slipped out on me," he said. "Instead of grabbing traction at the top of the jump, they spun and didn't get enough traction to shoot me across."

Slamming into the face of the second jump, the impact sent Delong over the handlebars of his four-wheeler and onto the ground to the left of the jump. He struck the ground with enough force to knock himself unconscious. He awoke with a throbbing headache and found it difficult to breathe. Delong stood up and leaned against his friend's ATV, trying to catch his breath. Once he did, he walked over to his ATV to see if anything was broken.

"I get repaired for free — I have to pay for the ATV," he said.

Amazingly, the machine was relatively undamaged, so he rode it back to his house and parked it in the garage. After sitting around for a few minutes, he decided he needed to get to a hospital and asked his wife to take him. But when he stood up, the pain was so great they decided to call an ambulance instead. Except for his helmet, he was still wearing his riding gear. Hoping to keep it from being cut off him, he painfully changed clothes before emergency personnel arrived.

After undergoing repeated X-rays and CT scans at the hospital, Delong was told he had no broken bones or serious internal injuries. His personal protective equipment (PPE) — including his helmet, neck brace, goggles, chest and back protector, knee protectors and riding boots — saved him from any serious injuries. However, he didn't get off scot-free. Delong spent three days in the hospital, enjoying the best pain medication the Army could provide, and wound up with a huge contusion ("the mother of all bruises") on his right side. But his injuries didn't limit his desire or ability to get back out on the track. Like good insurance, his PPE bought him a second chance to do the things he enjoys.

But it could have gone otherwise. Delong is convinced his PPE saved him from injuries that could have ended his competitive career on the motocross track.

"You never know — you could be the best rider out there. … If you watch supercross and motocross, those guys still get hurt and go down," he said. "I'm nowhere near that good. … If it can happen to the best people, it can happen to you too."

The Bad

Underestimating your risks can shave your margin of survival razor-thin. Spc. Don Michaels (a fictitious name to protect his privacy) rolled the dice and came up short. Fortunately, he's still here to share what he learned.

It was a freezing-cold morning as Michaels unloaded his 2008 Honda Rancher ATV at the riding park in Canmer, Ky. It was his first chance to ride at the park, which offered challenging terrain, including tall hill climbs. Earlier that morning, he'd met his friend John Douglas (not his real name), who also had an ATV — a Polaris RZR, a model typically referred to by riders as a "Razor." The Razor was a side-by-side model designed to carry a passenger and protected by a roll cage. Both riders headed to the park looking to have fun as they gained experience on their ATVs.

Not that Michaels lacked experience — he'd been riding ATVs for 15 years. His focus, however, was not on racing. Michaels was a deer hunter, and a utility ATV was just the ticket for getting to his hunting area and then transporting game back to his truck. At the slow speeds he normally rode, he never felt the need to wear a helmet or other protective gear.

As they rode that morning, Michaels followed Douglas toward a series of five hills. Each was about 500 feet high and provided a more challenging climb than the previous hill. Michaels knew his friend's machine was better suited for this type of riding. Still, he wasn't about to be deterred from trying. Watching his friend go up the third hill, Michaels climbed the second. Encouraged when he reached the top, he decided to join his friend atop the third hill. But Mother Nature had a surprise waiting. Freezing temperatures had left an additional "challenge" on the hill — one he wasn't prepared for.

"As I was going up the third hill … my right-rear tire hit a patch of ice," he said. "I felt myself starting to fall backward."

Michaels was in trouble. He wanted to roll the ATV slowly backward

while turning it and then pulling forward to move more sideways on the hill. But there was another problem. Two weeks earlier, a friend crashed the Honda and tore off its front brake lever. With only the rear brake working, the ATV's front began to come off the ground.

"As I was backing down diagonally, I felt the right-front side of my four-wheeler starting to flip back," Michaels said.

Sensing the ATV was about to roll over to the left, he jumped off, hoping to avoid it as it tumbled down the hill. But things didn't quite work out. As the ATV rolled, something — perhaps its handlebars — briefly caught and delayed the ATV long enough for Michaels to tumble downhill ahead of it. When the ATV started rolling over again, it came straight for him.

"It was almost like it was following me," he said.

Michaels went a short distance and then landed against a tree. Before he could get out of its way, the ATV struck him, pinning his head against the tree's trunk. Fortunately, it was the ATV's padded seat — not something much harder — that hit his head. Able to use his arms and shoulders, Michaels pushed the machine away and freed his head. However, as soon as he tried to stand, he fell. He had no idea how seriously he was injured.

Douglas, who was busy riding, hadn't seen the accident. When he finally saw the crashed ATV, he called out for Michaels, who was hard to see in his camouflage hunting gear. Riding to the accident site, Douglas spotted Michaels and loaded him into his four-wheeler for a ride down the hill.

"He did have a first aid kit, but it was all frozen," Michaels said.

He explained they used the gauze as best they could to dress his head injuries. Unfortunately, neither had cell phone coverage at the park and couldn't call 911.

Leaving Michaels inside his warm pickup truck, Douglas retrieved the crashed ATV. As

Michaels waited, he felt stunned and noticed his vision going in and out. When Douglas returned with the damaged ATV, they loaded it onto the back of Michaels' truck. Despite having a throbbing headache and bleeding from a nasty cut on his scalp, Michaels chose to drive the 54 miles back to Fort Knox. As they drove, Douglas followed him to make sure he made it.

As soon as Michaels could get phone

TOOLS FOR YOUR ATV

Learn to Ride Right

Training has greatly improved since the early years when learning to ride an all-terrain vehicle (ATV) was largely a self-taught option. There are organizations that provide instructor-led training at locations throughout the country.

Wear the Right Gear

So, what kind of ATV do you ride? Is it a sport or utility model? The correct personal protective equipment (PPE) varies between the two types. In addition, Army Regulation (AR) 385-10 requires riders wear PPE to prevent or reduce injuries. The list below is guidance for Soldiers riding to their favorite hunting spot, exploring the woods or performing outdoor chores on a utility ATV:

- **Helmet:** Wear a Department of Transportation (DOT)-compliant motorcycle helmet — a full-coverage design is recommended. AR 385-10 emphasizes that helmets must be properly fastened under the chin and adds that overseas Soldiers may wear helmets available in their host nation as long as they meet or exceed DOT standards. Helmets protect against injury and discomfort from windblast, cold, noise and flying objects. Your helmet is your most important piece of protective gear.
- **Eye Protection:** Use motorcycle goggles worn outside the helmet, unless you're wearing a full-coverage model. AR 385-10 requires that Soldiers wear impact- or shatter-resistant goggles, wraparound glasses or full-face shields meeting or exceeding American National Standards Institute (ANSI) Safety Code Z87.1. Goggles and face shields protect you against injury from flying debris while reducing dust, which irritates the eyes and impairs vision. Get either clear or tinted high-quality lenses.
- **Long-sleeve Shirt:** Wear a long-sleeve shirt made of cotton or synthetic material to protect you against abrasion, sunburn, windburn, dehydration and hypothermia. Bright colors will increase your visibility on the trail.
- **Gloves:** Wear specially designed off-road motorcycle or ATV gloves. These protect against injury from flying debris and trailside hazards such as branches and bushes. They also provide a more secure grip on the handlebars and protection in case of a fall.
- **Long Pants:** Wearing denim jeans or specialized riding pants will offer the best protection against abrasion, sunburn, windburn, dehydration and hypothermia.
- **Boots:** Thick-leather, over-the-ankle boots provide the best

reception, he tried calling his wife. Eventually, he reached her and decided to go straight to the emergency room at Fort Knox's Ireland Army Community Hospital. Once he arrived there, he was given an MRI. He was later transported to the University of Louisville hospital, where doctors read the MRI's results. They weren't encouraging.

"They found out that the entire right side of my face was shattered and I had a skull fracture on the left side. I also had bruised ribs," Michaels said.

Still, he was alive. Doctors used staples to close the scalp wound and sent him home late that night. The next day he went back to the hospital for surgery. Using three titanium plates, doctors rebuilt the right side of his face from the temple down to the eye socket and cheek.

Michaels spent a month at home recovering from his injuries. Shaving with his electric razor sent painful vibrations through the bones and plates in his face and even eating hurt. However, he survived his accident and returned to duty with his unit. Looking back, if he could have that Sunday to do over again, there are some things he'd change.

"I would have gotten my front brake put on before I went out to ride that day — that is probably one of the reasons this happened," he said.

Michaels now understands why protective gear, especially helmets, makes sense. The hill climbs and other challenges at ATV parks can quickly lead to spills, and riders need to protect themselves against injuries. And it's not just for their sake, but also for their Families. He contemplated what it would have been like had his crash proved fatal.

"It would have been really bad for my wife

KIT BAG

protection against foot and ankle injuries. Go one size larger than your normal shoe size to accommodate thick socks to cushion the feet and wick away moisture. Boots also provide the best grip on footrests and help you keep your footing when you get off your ATV.

If you're into motocross, hill climbing or getting air time, there's additional safety gear to help protect you.

- **Riding Jersey:** Made of cotton or synthetic material, riding jerseys help wick away perspiration and keep you cool. They also protect against abrasions, sunburn, windburn, dehydration and hypothermia. Some jerseys include light elbow pads. Bright colors increase your visibility on the road.
- **Elbow Guards:** Slip-on elbow guards may be worn over or under a riding jersey. Make sure the guards are comfortable and fit properly without restricting movement.
- **Riding Pants, Hip Pads and Knee Pads:** Wear special riding pants made of leather, denim or synthetic materials. Hip and knee pads may be built into the riding pants or purchased separately.
- **Riding Boots:** Choose special motocross (MX) boots made of thick leather with steel reinforcements. Go one size larger than your normal shoe size to accommodate thick socks to cushion your feet and wick away moisture. These boots also provide the best grip on footrests and help you keep your footing when you get off your ATV.

Additionally, if you're allowed to ride ATVs on the roads where you live, AR 385-10 requires you wear a brightly colored, outer upper garment during the day and a reflective upper garment during the night.

Ride the Right Way

Here are the golden rules for riders provided by the All-Terrain Vehicle Safety Institute:

- Always wear a helmet and other protective gear.
- Never ride on public roads because other vehicles could hit you.
- Never ride under the influence of alcohol or other drugs.
- Never carry a passenger on a single-rider ATV.
- Ride an ATV that's right for your age.
- Supervise riders younger than 16; ATVs are not toys.
- Ride only on designated trails and at a safe speed.

and even worse for my daughter," he said. "I'd already missed the first 15 months of her life being on deployment. Not being there for the rest of her life would be terrible."

The Ugly

Ignoring risks won't make them go away. Ignore them long enough and they have a way of making you go away. The events below are based upon an accident investigation conducted by the U.S. Army Combat Readiness/Safety Center. The names of the individuals involved have been changed to protect their privacy.

During a holiday weekend, Staff Sgt. Jerry Pope took his daughter and another Soldier camping on a riverbank near the post. After scouting out an undeveloped campsite on the river's west bank, the three returned home, where Pope loaded his ATV and their camping gear onto a trailer. Pulling it behind his 4x4 pickup, the three returned to the campsite. When they arrived, they unloaded his utility-type ATV — with his helmet attached to its rear rack — and set up camp. Cooking chicken and hot dogs, they called another friend, Don Freeman, who joined them about 9:30 that evening. Meanwhile, Pope fished and drank beer.

About 10:10 p.m., Pope got on his ATV and left the campsite wearing shorts, a T-shirt and sneakers. There was no moon out that night, so visibility was limited. About 20 minutes later, while traveling on an undeveloped dirt and gravel road, Pope lost control of his ATV, left the road and crashed. During the process, his ATV struck two trees, spun and then flipped

BY THE NUMBERS

If you think off-duty all-terrain vehicle (ATV) accidents for Soldiers are rare, guess again. Between Oct. 1, 2004, and July 2, 2010, ATV accidents killed 17 Soldiers and injured another 106 severely enough they lost time away from their units.

While ATV riding is popular year-round, the months of March through July see the greatest number of accidents, although numbers remain relatively high through October. When a Soldier is riding also makes a difference. While the majority (79 percent) of non-fatal accidents occurred during the day, nighttime crashes accounted for 71 percent of all fatalities.

Helmets, alcohol and speed were other factors considered in these accidents. While some Soldiers apparently believe helmets aren't needed when riding ATVs, the facts showed those who wore them were nearly six times more likely to survive an accident. And alcohol, so often referred to during safety briefings when talking about drinking and driving, was a factor in more than one-third of the fatal ATV accidents. Speeding — often an issue in automobile and motorcycle accidents — was less of a factor in ATV accidents. However, even so, 14 fatal and non-fatal accidents involved speeding riders.

There is another issue worth noting. Three of the fatally injured Soldiers were riding as passengers. Because most ATVs are designed to carry only the operator, adding a passenger makes ATVs much harder to control. And when riders lose control, they can put themselves and their passengers in serious danger.

back onto the road. Pope, who also landed on the road, was not wearing his helmet and suffered severe head injuries.

Pope's daughter and his two friends stated they heard the sound of his ATV for some 20 minutes after his departure. About 10:35 p.m., Freeman left the campsite to return home. Driving out of the campsite area, he used the same dirt and gravel road Pope had been riding on. After driving about one-third of a mile, he saw Pope and his ATV lying in the roadway. Stopping, he called 911, placed his phone on "speaker" and began CPR, taking instructions from the dispatcher. At the same time, the dispatcher notified the local fire department, an ambulance and state police to the accident.

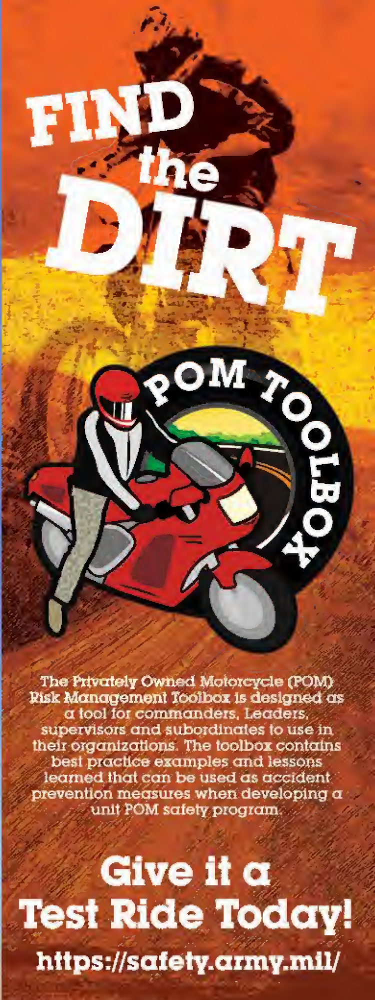
Unfortunately, Pope could not be revived and died from his injuries. But it didn't have to end that way. A few simple precautions could have prevented his death.

First, he could have worn his helmet. No piece of PPE is more important. And it's not just something racers, like Delong, need to wear. Remember Michaels? He wasn't racing or doing jumps. He hit a patch of ice while hill climbing and wound up tumbling downhill with his ATV close behind. With his fractured skull, he missed the grim reaper by a very slim margin. Unfortunately, for Pope there was no margin.

Pope could have chosen not to drink before riding his ATV. He had a history of alcohol problems. Whether he was legally intoxicated was not known when the investigation was conducted. What is known is mixing the bottle with the throttle can add huge risks when operating vehicles such as ATVs. Even when riders don't "feel" impaired, alcohol has already affected their judgment. When people drink to get a buzz, it's basically to alter their mindset. Sadly, such mind-altering experiences can have life-altering consequences.

And then there was another risk Pope apparently did not consider. Remember, it was a moonless night. Although Pope didn't exceed the posted speed limit, the low visibility called for him to ride slower than he did. But, sadly, prudence didn't prevail.

The lessons learned from this may help other Soldiers who ride ATVs, but they won't do Pope any good. Nor will they comfort his Family, which has lost a husband and father. For them, all that remains is the grief of losing someone they loved. They know only too well that dying in a preventable accident is an ugly way for any Soldier's life to end.«



The Privately Owned Motorcycle (POM) Risk Management Toolbox is designed as a tool for commanders, Leaders, supervisors and subordinates to use in their organizations. The toolbox contains best practice examples and lessons learned that can be used as accident prevention measures when developing a unit POM safety program.

Fright Night

MAJ. SEAN KELLEHER
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Halloween is a time of fun and excitement for both children and parents. For the unprepared, though, it can have tragic consequences.

Halloween is a dangerous time of year for children. According to the Centers for Disease Control and Prevention, young pedestrian deaths were four times higher Halloween evening than any other night of the year. Fortunately, by implementing a few safety controls, parents can help mitigate many of the hazards children face while trick-or-treating.

Pedestrian Accidents

Halloween consistently ranks as one of the most deadly days of the year for pedestrians. Here are some control measures to help keep children safe:

- Give your child a flashlight to carry or attach a glow stick to their costume so they're more visible to motorists.
- Remind children to look both ways before crossing the street.
- Walk only on established sidewalks or stay as close as possible to the shoulder of the road. If children are walking in a group, walk single-file.
- Look both ways before crossing the street and only cross at corners. Do not hide or cross the street between parked cars.
- Don't allow children to skateboard, rollerblade or bicycle while trick-or-treating.
- Remind children not to assume the right of way. Drivers often have difficulty seeing trick-or-treaters.

Costumes

When purchasing a costume, look for the words "flame retardant" or "flame resistant." These costumes are more fire-safe. Adults should also keep the following safety tips in mind:

- Make sure the eye holes in your child's costume are wide enough to offer unobstructed vision. As an alternative, use face paint instead of a mask.
- Ensure the costume is light-colored and bright enough to be visible to motorists. If not, decorate the costume and/or treat bag with reflective tape.
- Never carry candles, torches or other open flames as part of a costume.
- Costumes should be short enough to prevent tripping.
- Costume accessories such as knives and swords should be made of flexible and soft material. Hats and scarves should be secured to the costume to prevent them from slipping over the child's eyes.
- Children should wear walking or running shoes while trick-or-treating, and shoelaces should be kept tied.

Pumpkin Carving

Pumpkin carving is another fun Halloween tradition. However, sharp knives and

DID YOU KNOW?

Children aren't the only ones who need to be especially vigilant on Halloween. According to Safe Kids USA, drivers should:

- Slow down in residential neighborhoods and school zones. Remember that popular trick-or-treating hours are during the typical rush-hour period of 5:30 to 9:30 p.m.
- Be especially alert and take extra time to look for kids at intersections, on medians and on curbs. Children are excited on Halloween and may move in unpredictable ways.
- Slowly and carefully enter and exit driveways and alleys.
- Reduce any distractions inside your car, such as talking on the phone or eating, so you can concentrate on the road and your surroundings.

other carving instruments can be deadly in the hands of inexperienced children. It may be easier and safer for the parent or an older child to carve and let younger children scoop out the pumpkin's "guts." If you feel your child is not ready to help carve a pumpkin, consider decorating it with markers, paint or stickers instead.

Abductions

Every year, kidnappers take advantage of Halloween to do the unthinkable. To keep your children safe from abduction, follow these guidelines:

- Avoid trick-or-treating alone; walk in groups or with a trusted adult.
- Only go to homes where you know the residents or the resident has their outside lights on.
- Do not allow children to get into cars or talk with strangers.
- Securely place emergency identification information (name, address, phone number) on the child's costume or on a bracelet.
- Teach your child to make a scene if anyone tries to grab him. Tell him to loudly yell, "This person is not my father/mother!" and make every effort to get away by kicking, screaming, biting and resisting.
- For older children, be sure to agree on a specific area they will be going and a time when they will return home. Provide them with a cell phone or a handheld radio they can use in an emergency.

Treat Inspection

It is also important to inspect your children's treats after they've finished trick-or-treating. Some businesses even offer free X-ray analyses of candy, which will show any foreign objects embedded in the treats. To be on the safe side, only allow your children to eat factory-wrapped treats. Immediately discard any treats that look suspicious and avoid eating homemade goodies unless you know the cook well. It's also a good idea to feed your child before trick-or-treating so they are less tempted to eat any candy before you can inspect it.

Unfortunately, there's no real "trick" to making Halloween a "treat" for your children. But by putting safety first, you'll help ensure it's a night filled with fun, not regret.«

Fall Fun!

Army Safe is Army Strong and that starts with a Soldier's Family. Have the information to help you and your Family stay SAFE.

Family engagement kit

https://safety.army.mil

Be prepared this fall and get your own Family Enagement Kit

TODAY!

ARMY STRONG

ARMY SAFE IS ARMY STRONG

A BAND OF BROTHERS & SISTERS

LIVE WI

In July 2003, my wife and I were eyeing a three-bedroom brick rancher on a large lot just outside Elkview, W.Va. After we made an initial inspection of the house, we decided to make an offer. Following a home inspection, our loan was approved. We had bought our first home.

RE

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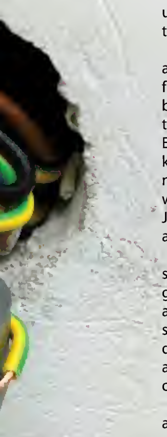

As soon as we settled in, I began taking care of minor problems the home inspection had uncovered. I'd worked with my father growing up, so I had a solid foundation on how to do odd jobs around the house and believed I could repair these issues myself. If I encountered anything unfamiliar, I figured I always had the Internet to guide me.

It was during this time I discovered an extension cord in the attic. Upon further inspection, I found the cord had been used by the previous owner as the wiring for a motion-sensing light. Even though I had some electrical knowledge, I knew I was going to need some help evaluating the house's wiring system. So, I called my neighbor, Jerry, who was a certified electrician, and asked him to give me a hand.

After Jerry inspected the electrical system, he recommended I install ground fault circuit interrupters, which are designed to protect against electric shocks near any water sources. I also decided to rewire all the outlets with a ground wire since they were not originally grounded to the breaker box.

Jerry was a great teacher, inspector and helper. He told me what tools I needed to do the job properly and even loaned me a free-ranging amp meter to test the load on each of the new electrical circuits. Eventually, I began wiring areas of the house by myself. When I finished wiring a circuit, Jerry would inspect it for correct installation. In just a short time, I'd become the Bob Vila of Hazel Drive — or so I thought.

One Saturday morning, I awoke early so I could get to work on the house. I gathered my electrical tools and identified the rooms I wanted to split into separate circuits. I then turned off the power at the breaker box and crawled under the house. After identifying what I thought was the correct wire, I went to work.

At this point, I would normally use a non-contact voltage detector to ensure I had selected the right wire. This time, however, I skipped this critical step because I was sure I was right. With wire pliers in hand, I squeezed. Immediately there was a loud pop, a bright flash and a loss of power to the whole house!

My wife began yelling at me in a panicked voice, asking if I was OK. I assured her I was fine and that I would come tell her what happened as soon as my eyes recovered from the flash. I then inspected the damage to my wire pliers and made my way out from under the house. After convincing my wife I was all right, I finished rewiring the circuits I had originally began working on, as well as the one I destroyed.

So what went wrong? After all, I had sought out a professional to help me. Jerry had been my teacher, helper and inspector throughout this project. I had spared no expense and bought the right tools to do the job safely. I then realized I was the weak link in the chain. I had become comfortable with rewiring the house and working with electricity, which led me to be overconfident.

When I look back at this accident, I see a chain of events that nearly ended in disaster. Sometimes, repetitious tasks become so familiar they become routine. My overconfidence led me to take a shortcut that could have cost me my life. I was so confident in my ability that I skipped using the non-contact voltage detector to check for a live wire. What's more, I didn't even notice I had placed my other hand on the damp ground beside the foundation of the house when I cut the wire. I was the perfect path for the electricity to flow to ground.

What may have saved my life that day wasn't my skill or knowledge, but, rather, a $10 pair of wire pliers with rubber handles. Using those pliers was the only thing I did right. It does pay to buy the proper tools.

I wonder how many times we nearly have accidents without realizing it. How often do we place ourselves in harm's way by taking shortcuts? How many times do we perform routine jobs without thinking of the risks? Confidence is good, but overconfidence can be a killer.«

Editor's note: Before performing any electrical work on your home, seek the assistance of a professional electrician.

“**HOW** many **TIMES** do we **PERFORM** routine jobs **WITHOUT THINKING OF THE RISKS?**”

Peer to Peer

And the Winners are ...

The creativity and humor of Soldiers was on full display in the fiscal 2010 Peer to Peer Safety Video Competition. Plotlines involved rabid bunnies, a runaway doll car and a hand-washing superhero among others, but three videos stood above the rest to take the year's top prizes.

The first-place video, titled "Vehicular Safety — Cellphone Usage Version 2," was produced by Spc. Canaan Radcliffe of the 55th Signal Company (Combat Camera). The video portrays a tough, safety-conscious sergeant major on the lookout for distracted drivers. Sgt. Jeremy Antonson with the 88th MP Detachment claimed second place with "Speed Safety," which takes a humorous look at the excuses drivers often use when caught speeding. Coming in third place was "Hell on Wheels: Motorcycle Safety for Soldiers" by Spc. Andrew Enriquez, a Soldier with the Idaho National Guard.

The winners will receive certificates and "Safety Emmy" trophies from the U.S. Army Combat Readiness/Safety Center and share cash prizes totaling $3,750 from Better Opportunities for Single Soldiers to benefit their local BOSS chapter. Congratulations to this year's winners! «

More Power t

Mid-October in the Rockies is no place to be on an outing by yourself, especially if you're unprepared. During this time, the pilots at the High-Altitude Army Aviation Training Site (HAATS) typically spend their search and rescue time looking for lost hunters, but not so on this day.

Two out-of-state hikers decided to climb Holy Cross Mountain, which is close to Leadville, Colo. Armed with only tennis shoes and a pack of cigarettes, the hikers climbed to the summit. On the way down, one of the hikers picked up the pace back to camp only to stop at a second trailhead to wait for his friend, who never arrived. Ground teams began searching the following day as 18 inches of snow fell in the high country. The next day, HAATS dispatched an OH-58A to aid in the search.

The aircrew's first mission was to insert six individuals and a search dog to a location where searchers believed the lost hiker had built a fire the previous day. The landing zone (LZ) was about 12,500 feet mean sea level (MSL) in fresh powder and swirling winds. With the lost hiker expected to have hypothermia at this point, there wasn't a whole lot of time to debate whether the aircraft could make it. There was no time for guessing.

Two passengers and a search dog were loaded onto the aircraft and inserted into the LZ, followed by a second lift of two passengers until all were in place. Shortly after arriving, they found the lost hiker close to one of the ground crews and took him to safety. Although suffering from hypothermia and frostbite to his ankles, this man lived to tell his tale. Others have not been as lucky.

So how did these pilots land a fully loaded OH-58A at 12,500 feet in swirling wind and whiteout conditions? The answer is they didn't "think" they could make it; they knew they could! They were able to place ground teams in a position to rescue the hiker and save his life, instead of becoming victims themselves. It was neither magic nor recklessness on the pilots' part. They clearly understood three

to You

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principal points of power management: understanding the environment, their aircraft and themselves.

Understanding the Environment

First, the pilots understood their environment, not simply because Holy Cross Mountain is in their backyard, but because the pilots understood winds and density altitude. Winds move over and around obstacles in a consistent and, therefore, predictable manner. Understanding the mechanical turbulence created by these winds allows a pilot to avoid "bad air" — the downdraft/turbulent areas that require extra power to overcome — that could result in loss of aircraft control. The pilot understood that staying in "good air," or the updraft sides of canyons and valleys, would increase his lift, effectively improving his margin of safety. This provided useable power that wouldn't normally be present on a calm day at the same density altitude. Winds also played a part in mitigating whiteout on short final to the LZ by keeping the snow cloud generated by the rotor wash behind the pilot's field of view. This allowed the pilots to attempt the landing with less than out-of-ground effect (OGE) power available because they could use the ground effect safely.

Density altitude is another critical environmental factor. The aircraft has only so much power, and increasing both the pressure altitude and temperature reduces that. However, in this case, there was an increase in the pressure altitude by being at 12,500 feet MSL. The temperatures in October, especially after a cooling snowstorm, did not increase the density altitude to the point where a safe landing could be accomplished with the given loads. Aviators correct for density altitude in their performance planning, whether they realize it or not, any time they use temperature and pressure altitude to determine a power number. This is also true in the tabular data used to determine the power numbers for this mission.

Understanding the Aircraft

The second principal is they understood the aircraft. The single-engine OH-58A is capable of some amazing feats if you understand what it takes to fly it. The pilots understood there would be no OGE power available to get into the LZ. This might have been a limiting factor were the winds lighter (due to whiteout) or the LZ was a small, confined area (possibly requiring OGE power to depart). Neither was the

case, so the pilots were able to make a controlled approach and use in-ground-effect power to set the aircraft down gently.

The OH-58 also has a caution located in the performance planning section of the operator's manual that pilots often see, but seldom remember. The caution states that low-altitude maneuvering flights at airspeeds below 35 knots are not recommended under conditions where power required to hover OGE exceeds maximum continuous power (available). Pilots don't often encounter this flight condition, so they typically forget this caution unless it's applied during search-and-rescue operations in the high country. This caution, coupled with the knowledge of how to avoid loss of tail rotor effectiveness, was in the back of the pilots' minds as they maneuvered in the search area. They mitigated this problem by avoiding downdraft and tailwind conditions and maintaining airspeed, especially while turning in the canyons and valleys.

Understanding Themselves

Third, the pilots understood themselves. While most of us aviators don't like to admit it, we all have personal limits. It's a matter of understanding the limits of your personal abilities. Knowing your personal limitations will help you make smarter and safer decisions. This is extremely important with single-pilot aircraft. There is nothing wrong with admitting

> “Knowing your **PERSONAL LIMITATIONS** will help you make **SMARTER** and **SAFER DECISIONS.** This is extremely important with **SINGLE-PILOT AIRCRAFT.**”

you have never done a particular kind of mission or task before, or that it is outside your comfort level.

To expand your envelope of abilities, you must train with a seasoned professional on the tasks you have never done before. Someone wanting to learn how to fly in mountainous terrain or overwater operations would not go out with a flight instructor who had never done these tasks. With a flight crew of more than one person, knowing your personal limitations will allow you to draw upon the experience level of the entire crew. The goal of pilots “understanding themselves” is not to be the limiting factor in success or failure. If your performance planning says the aircraft can do the task required, the pilot, as a professional aviator, should not be the limiting factor.

Summary

You can’t really sum up power management and its tactics, techniques and procedures in this one article. Each aircraft and condition provides its own challenges. The three points that are fundamental to understanding power management apply to all aircraft and pilots. Understanding and applying knowledge of the environment, the aircraft and yourself may mean the difference between making a successful rescue or becoming a victim.«

Lead, Follow or Get Out of

In the Army, Soldiers have an unwritten code about taking care of their brothers and sisters in uniform. Part of that code is that we would never intentionally do anything to make our brothers and sisters look bad. I can only assume that this code is partly tradition, partly honor and maybe so we can expect the same courtesy from others. The tragedy of our time-honored code is that many military motorcyclists choose to leave it behind.

the Way!

EARNIE EAKINS
Driving Task Force
U.S. Army Combat Readiness/Safety Center
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How is it that a band of professionals separate themselves from one of the greatest attributes of Soldiering? Unfortunately, the few that abandon our code give the rest of us a bad name. Is it because the "bad boy" attitude of motorcycling is so great that some are drawn into it? Maybe a little history lesson will help us understand why.

"One Percenters" are the bad-boy bikers associated with outlaw motorcycle clubs often celebrated in American film and print. The History Channel's segment on outlaw bikers helped form public opinion and made the history of bad-boy bikers a legitimate subject. The definition of a "biker" is a person who lives to exhibit the bad-boy motif. That's in contrast to a "motorcyclist." Motorcyclists are professional at their sport, aiming to be the best and planning to live long enough to fully develop their skills. Sadly, because of the public's perception of riders, Army motorcyclists have to work very hard to avoid being categorized as bikers.

In reality, people have a "herd" mentality that brings them together in groups. Since ancient times, people have grouped together for protection. That helps explain the code between Soldiers. However, this herd mentality also explains the One Percenter's negative reaction toward others on the road, including drivers and motorcyclists who obey the law. It also explains the mentality of motorcyclists toward automobile drivers, many of whom drive in a way that threatens riders. It's a matter of survival or keeping threats at a distance. The problem is we, as

YOU'VE GOT OPTIONS

When you buy that new sport bike or cruiser, you can bet there will be plenty of options for you to choose from. However, did you know the best option is a "freebie" available for Soldiers? That's right — just visit the Motorcycle Mentorship Program (MMP) website at https://safety.army.mil/MMP/. When you get there, click on the "Associations" button to find the nearest MMP. There you'll find seasoned riders who will help you keep the rubber on the road and the fun in the ride.

> “ **MEMBERSHIP** in an **MMP** gives NCOs an **OPPORTUNITY** to positively **SHAPE** Soldiers’ **BEHAVIOR** outside the gates, where so many **DIE** in **NEEDLESS ACCIDENTS.** ”

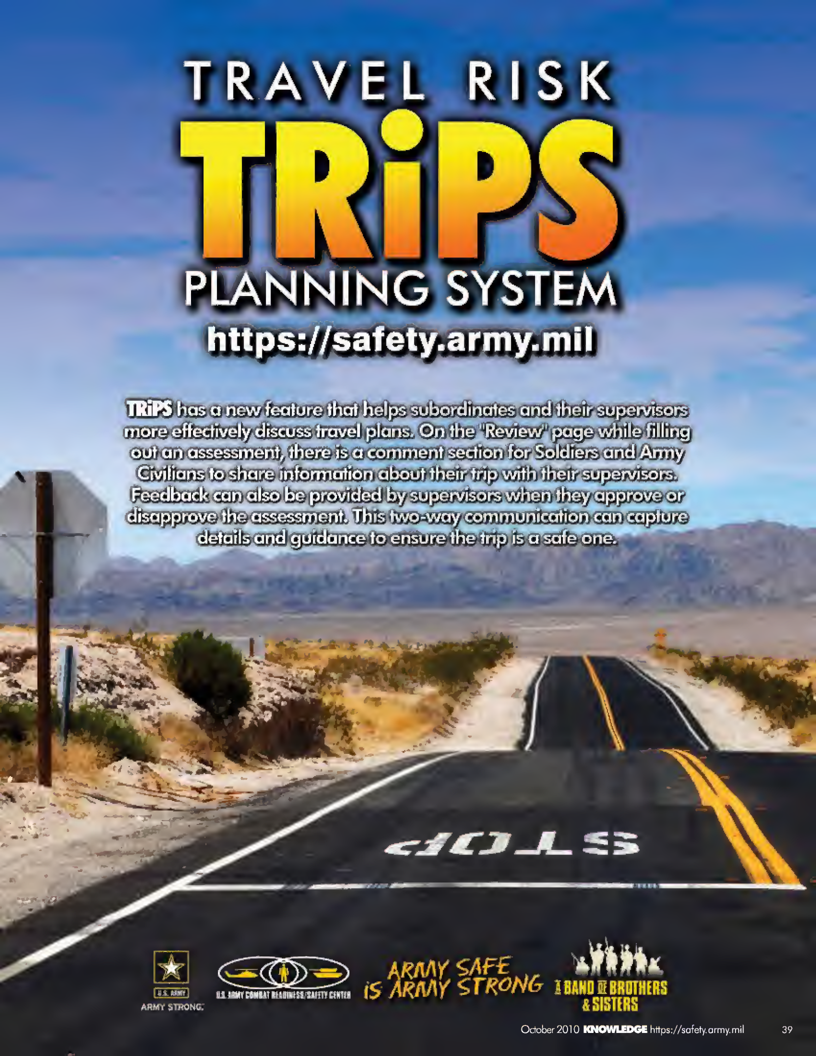
Army motorcyclists, would like to think of ourselves as the good guys who follow the rules all the time. However, that’s not always true.

The truth is we are ambassadors for the sport of motorcycling every time we start our engines. When we see a rider wearing a One Percenter patch or even one of our brothers or sisters stopped by the police, we often snicker as we pass by thinking, “Better him than me.” We seldom get involved when other Soldiers are giving us a bad name off duty even though, were we on duty, we would take corrective action. The Army is now seeing this attitude spread among our senior NCOs and junior officers. Why such a double standard between on- and off-duty activities?

Because we’ve allowed a few riders to give us a bad name, the first question asked when a Soldier has a motorcycle accident is, “What did they do wrong?” That question may seem unfair. However, in the Army — unlike the civilian world — most fatal accidents are the result of the rider’s actions, not those of other motorists. Why is this the case? Is it because of ignorance, lack of skills or neglect? Most Army motorcycle fatalities are the result of at least one of these factors.

As Army riders, we face growing challenges. Fuel prices have made riding more popular and more Soldiers are taking to the road on two wheels. As that happens, it increases the chances a Soldier will make a wrong decision that can make all of us look bad. As riders, we are a minority among Soldiers and that’s not likely to change in the foreseeable future. For our own benefit, we need to ride so that we protect ourselves, each other and our image as riders in the Army.

The Army Motorcycle Mentorship Program (MMP) is the greatest tool we have available to do that. Membership in an MMP gives NCOs an opportunity to positively shape Soldiers’ behavior outside the gates, where so many die in needless accidents. The MMP is steeped in Army values and the tradition that we never leave a fallen comrade behind. Let’s use our bond as a “band of brothers and sisters” to reduce losses among Army riders.«



TRAVEL RISK

TRiPS

PLANNING SYSTEM

https://safety.army.mil

TRiPS has a new feature that helps subordinates and their supervisors more effectively discuss travel plans. On the "Review" page while filling out an assessment, there is a comment section for Soldiers and Army Civilians to share information about their trip with their supervisors. Feedback can also be provided by supervisors when they approve or disapprove the assessment. This two-way communication can capture details and guidance to ensure the trip is a safe one.

U.S. ARMY
ARMY STRONG.

U.S. ARMY COMBAT READINESS/SAFETY CENTER

ARMY SAFE IS ARMY STRONG

A BAND OF BROTHERS & SISTERS

Happy Feet

DR. PAUL ST. ONGE
Qinetiq North America
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Nowadays, there is an overwhelming selection of shoes, sandals and boots available for just about every activity. Unfortunately, the No. 1 word in footwear is "fashion," so color and aesthetics often trump design, proper fit and comfort. However, matching the correct footwear to the activity can increase performance and reduce the potential for injury.

When choosing footwear, it is important to consider both the movement requirements of the activity and a comfortable fit. A correct fit should match the natural outline and contours of the foot and be snug, but not tight. While standing, there should be about a half-inch of space beyond the longest toe, and the toes need to be free to wiggle. The shoe's arch and heel should be supportive and match the curving contours of the bones of the foot and ankle. The shape of the top of the shoe, tongue and laces should be adjusted to match the top of the foot to provide a secure fit without squeezing or pinching.

In addition to fit, the foot should not move excessively, the toes should not bump against the front of the shoe and there should not be areas of concentrated pressure. Uncomfortable shoes can cause blisters or pain that can limit performance, happiness and physical activity. Shoes that cause feet to tingle, fall asleep or go numb can cause permanent nerve injury and must be replaced.

When fitting shoes, it is important to focus on comfort first, shoe design next and style last. Shoe designs can be divided into seven basic categories: dress shoes; boots used for hiking, hunting and work; court shoes used for basketball, tennis, aerobics, cross-training and volleyball; running/walking shoes designed specifically for those activities; field shoes used for golf, baseball, football and soccer; sport-specific shoes used for a single purpose such as rock climbing, bicycling, water sports and track and field events; and stylish footwear, including sandals, flip flops and slippers.

> “When **FITTING SHOES**, it is **IMPORTANT** to **FOCUS** on **COMFORT** first, shoe **DESIGN** next and **STYLE** last.”

The basic characteristics that differ between designs are the outsole, midsole and lateral stability provided by the shoe. The outsole is the bottom of the shoe that contacts the ground. The midsole is the foam, gel or air section that absorbs energy when the foot strikes the ground. Lateral stability is the shoe's ability to support the foot and ankle during side-to-side motion. Boots, for example, typically have tough, non-slip outsoles and thick, cushioning midsoles and offer a high degree of lateral stability provided through upper materials that cover the ankle.

Court shoes and cross-trainer/aerobic sneakers are designed to have a non-marking sole, high to moderate energy-absorbing midsoles and provide good lateral stability with either above-the-ankle (high-top) or below-the-ankle (low-top) designs. Running and walking shoes are specially designed for forward movements and are constructed with energy-absorbing midsoles. However, these midsoles are unstable during lateral movements and can cause ankle injury when used for aerobics or sports that require quick side-to-side movements.

Field shoes typically have cleats integrated into the outsole to aid with traction on grass and dirt and may be either high- or low-top. They

have thin midsoles to increase lateral stability and do not require thick midsoles because the play surface absorbs the foot strike energy. Sport-specific shoes should also fit properly and only be used for their intended purpose. When entering a new sport, it is a good idea to research shoe options on the Internet and go to specialty shops and test out several models.

Stylish footwear such as sandals, flip flops and slippers can cause injury if worn often or in the wrong setting. Sandals and flip flops are often loose fitting with open toes and/or large ventilation holes that can cause broken toes. These also provide little to no lateral support, or have slick outsoles and thick or thin midsoles that could cause a sprained ankle or a fall. The loose fit requires active muscle contraction to keep the shoes on, which can cause muscle strain, and presents an often-overlooked tripping hazard. These shoes should never be worn when sports, athletic leisure activities or emergency situations are possible. When walking on the beach, these are great; however, wearing these shoes when running after a football or mowing the lawn can lead to disaster.

It is best to shop for shoes at the end of the day or after a long walk or run. Foot size can increase up to half a shoe size throughout the day or a workout because of swelling and expansion of the soft tissues in the feet. Also, always bring a set of the socks that will be worn with the new shoes. If you are unsure what socks to use, plan to purchase new socks at the same time.

At the store, try on at least three different brands. Shoe designers constantly change features and fit. A brand or a model that fit perfectly before may not fit as well as another brand or model the next time. Select shoes for the foot and ankle support features they provide and the activities for which they were designed, not for color or style. When trying on new shoes, take time to properly adjust and tie the laces for the best possible fit. Once the shoe is fitted, test each model by performing the moves you will use in the gym or on the court, field or road.

When trying on new shoes, don't be embarrassed to take the shoes for a real test. Some stores will even allow shoes to be tested outdoors. How each pair responds during real-world movements such as running, walking, zigging and zagging, kickboxing, jumping, skipping or kicking a ball should be evaluated. Test running and walking shoes and boots on an incline to evaluate uphill and downhill climbing performance. If the shoe does not feel like an extension of your foot, it is not right for you. The shoe should fit snugly without pinching, rubbing, crushing the toes or allowing the heel to move during most movements.

> “**SELECT** shoes for the **FOOT** and **ANKLE SUPPORT** features they **PROVIDE** and the **ACTIVITIES** for which they were **DESIGNED**, not for **COLOR** or **STYLE**.”

When purchasing shoes for a specific activity, it is important to select those designed to match the physical movements of the task. Shoes that are designed for one purpose should only be used for that purpose. If you are selecting your shoes just because they look cool, you may end up wishing you had gone with something a little less cool and a bit more realistic.«

READY FOR THE RISK?
GRAT
GROUND RISK ASSESSMENT TOOL
https://safety.army.mil
Ground Risk Assessment Tool
GRAT-S
http://safety.army.smil.mil

GRAT is easy to use and provides users with accident hazard and control information and assists them in producing an automated CRM worksheet (DA Form 7566) for their mission, task or activity. Users can save, e-mail, edit or print the worksheet.

GRAT-S is now available and allows Leaders in forward-deployed units access to GRAT on the SIPRNET.

Accidents occurred between June 1-30, 2010

AVIATION

AH-64D

CLASS A

- The aircraft impacted terrain during night high-altitude mountain environmental training, resulting in Class A damage.

CLASS C

- The aircraft experienced an engine overtorque of 138 percent for one second and a mast overtorque condition of 123 percent for two seconds during manual throttle operations.

CH-47D

CLASS A

- During a rescue mission, the aircraft's main rotor blade (MRB) struck rising terrain while attempting to land. The aircraft's fuselage and MRB received significant damage.

CLASS C

- The left-side emergency exit door separated from the aircraft while in flight. The crew landed without further incident and recovered the damaged door.

OH-58D(R)

CLASS A

- The aircrew reported a loss of power while executing a right turn. They continued the turn to clear terrain and then applied power to gain airspeed; however, the aircraft continued to descend, entered a spin and then crashed into trees. The aircraft was destroyed.

- The aircraft contacted the ground shortly after takeoff from the forward arming and refueling point. The crew was able to egress with one injury; however, the aircraft sustained damage.

UH-60L

CLASS A

- The aircraft was Chalk 1 in a flight of four when it struck the ground during a descent. A postcrash fire ensued. Three Australian Soldiers and one American Soldier were killed.

CLASS C

- The aircraft's MRBs contacted a tree during descent to an unimproved landing zone. All four MRB tip caps were damaged, and one blade required depot-level repair.

RC-12K

CLASS A

- The crew reported loss of engine power during a go-around for engine-out training. The aircraft descended to ground impact, resulting in Class A damage.

RQ-7B

CLASS B

- The unmanned aircraft (UA) entered an uncommanded descent during the return leg of flight. The recovery chute deployed; however, the UA was never recovered.

LOSSES AVIATION

Class A/Fatalities as of Sept. 2, 2010

ATTACK	2/1
RECON	4/4
UTILITY	7/6
CARGO	4/0
TRAINING	0/0
FIXED-WING	3/0
UAS	6/0
TOTAL	26/11

CLASS C

- The UA incurred a generator failure during flight, followed by engine failure. The recovery chute deployed; however, the UA touched down inverted, causing damage.

GROUND

ACV

CLASS A

- A Soldier who was a rear passenger in a Mine Resistant Ambush Protected (MRAP) vehicle was killed when it overturned during a convoy security patrol. The gunner and a Soldier riding as the front-seat passenger were also injured.

- A Soldier was killed when he was pinned between an MRAP and the disabled Armored Security Vehicle he was preparing for towing.

- A Soldier died when he was ejected from an MRAP after it failed to clear an overpass, which caused the turret to separate from the vehicle.

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, e-mail safe.knowledge@conus.army.mil.

CLASS B

- ◘ A Soldier suffered a permanent partial disability injury when he was ejected from an MRAP All-terrain Vehicle (ATV) during a convoy movement. The accident occurred when the right-rear tire blew, causing the vehicle to slide off the road and overturn down steep terrain.

AMV

CLASS A

- ◘ A Soldier was killed when he was ejected from an M998 HMMWV that overturned as the driver negotiated a curve in the road.

- ◘ A Soldier died when he was ejected from an M1151 HMMWV that overturned after it was rear-ended by a civilian vehicle.

CLASS B

- ◘ An M984 wrecker and the MRAP it was towing were destroyed when the driver lost control, causing the MRAP to fishtail and overturn. The accident resulted in a fuel spillage that ignited both vehicles.

LOSSES
GROUND

	Class A/Fatalities as of Sept. 2, 2010
AMV	14/6
ACV	11/10
PERSONNEL INJURY includes weapons-handling accidents	28/25
FIRE/ EXPLOSIVE	5/3
PROPERTY DAMAGE	1/0
TOTAL	59/44

Personnel Injury

CLASS A

- ◘ Two contract range personnel and a Soldier were struck by rounds during live-fire training. One contractor was killed, while the other was struck in the shoulder. The Soldier suffered a graze injury.

DRIVING

POV

CLASS A

- ◘ A Soldier was killed when he drove his SUV through a "T" intersection, struck a tree and rolled the vehicle onto its left side. The Soldier's two passengers were transported for treatment.

- ◘ A Soldier and his civilian passenger were both killed when he lost control of his vehicle in a curve and collided with another Soldier's car head-on. The Soldier in the other vehicle was seriously injured and hospitalized for 17 days.

- ◘ A Soldier who was a passenger in a vehicle driven by an intoxicated civilian died when the driver lost control during a lane change, causing the vehicle to leave the road, strike a light pole and overturn. The driver was transported for treatment and later charged with reckless driving and driving under the influence.

- ◘ A Soldier was killed when he lost control of his vehicle while speeding, overturned and then struck a guardrail and several concrete pillars.

LOSSES
POV/POM

	Class A/Fatalities as of Sept. 2, 2010
CAR	36/37
SUV/JEEP	10/11
TRUCK	6/6
MOTORCYCLE	36/33
PEDESTRIAN	11/12
OTHER* *Includes vans and ATVs	3/3
TOTAL	102

Fiscal Year 2009: 98 Three Year Average: 108

POM

CLASS A

- ◘ A Soldier died when he lost control of his motorcycle while riding on a winding highway, went across the median and struck a guardrail. Police suspect alcohol was a factor in the crash.

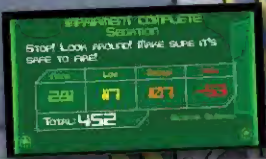
- ◘ A Soldier lost control of his motorcycle and was later found lying face down in a ditch. The Soldier was hospitalized and is being maintained on life support equipment. The Soldier was not wearing his helmet or personal protective equipment.

OFF-DUTY

Pedestrian

CLASS A

- ◘ A Soldier was struck and killed by a vehicle when she stepped into a parking lot while en route to sick call.

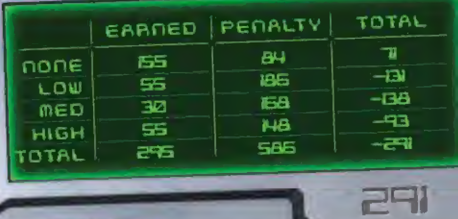


[illegible] COMPLETE
SEDATION

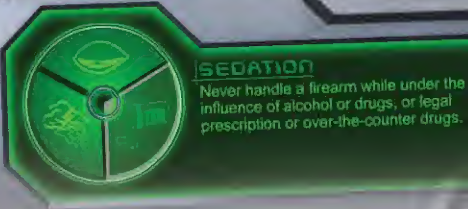
STOP! LOOK AROUND! MAKE SURE IT'S SAFE TO FIRE!

None	Low	[illegible]	[illegible]
281	117	107	-53

TOTAL: 452

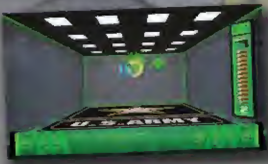


	EARNED	PENALTY	TOTAL
NONE	155	84	71
LOW	55	186	-131
MED	30	168	-138
HIGH	55	148	-93
TOTAL	295	586	-291



SEDATION

Never handle a firearm while under the influence of alcohol or drugs, or legal prescription or over-the-counter drugs.



Firearms Safety Techniques, an interactive site, is available for Soldiers, Family members and Civilians to learn about off-duty safe firearms handling. Visit the site for more useful firearms safety resources.

FIREARMS safety techniques

GIVE IT A SHOT!

Visit https://safety.army.mil/firearm-safety and get on target today

TAKE THE CHALLENGE,
LEARN THE LESSON.

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https://safety.army.mil

ARMY SAFE IS ARMY STRONG

A BAND OF BROTHERS & SISTERS

WHICH ONE ARE YOU?

IDENTIFY THE HAZARDS AND DETERMINE IF YOU OR YOUR FRIENDS ARE AT RISK

Check out your local Better Opportunities for Single Soldiers meeting to learn how you can see the BOSS Safety Factor